

REMARKS

In view of the above amendments and following remarks, Applicant requests favorable reconsideration of the above-identified application.

Claims 1-5, 7-15, 17-25, and 27-43 are now pending in this application, with Claims 1, 7, 11, 17, 21, and 37 being independent. By this Amendment, Applicant has canceled Claims 6, 16, and 26, amended Claims 1, 4, 5, 7-11, 14, 15, 17, and 19-25, and added new Claims 27-43.

Claims 1, 2, 4, 5, 7, 9-12, 14, 15, 17, 19-22, and 24-26 stand rejected under 35 U.S.C. § 102 as being anticipated by U.S. Patent No. 5,365,312 (Hillmann, et al.).

Claims 6 and 16 stand rejected under 35 U.S.C. § 103 as being unpatentable over Hillmann, et al. in view of U.S. Patent No. 5,995,774 (Applegate, et al.). Claims 3, 8, 13, 18, and 23 have been rejected under 35 U.S.C. § 103 as being unpatentable over Hillmann, et al. in view of International Publication No. WO 98/52762 (Purcell, et al.). Applicant traverses these rejections.

As recited in independent Claim 1, Applicant's invention is directed to a printing apparatus to which an expendable unit is detachably attached. The expendable unit has a memory for storing and holding information that concerns a recording agent and a use state of the recording agent. The printing apparatus includes memory access means for reading from and writing to the memory in the expendable unit. Setting means sets inhibition/permission of writing with respect to the data which is stored in the memory. The memory has a data area storing the data that concerns the recording agent and the use

state, and a setting area for setting inhibition/permission of writing with respect to the data area.

Independent Claim 11 is directed to a method of controlling a printing apparatus. Independent Claim 21 is directed to an expendable unit that is detachable from a printing apparatus. These claims recite many features similar to those discussed above with respect to independent Claim 1. (Applicant notes, however, that Claim 21 recites data that concerns the recording unit, rather than the recording agent.)

As recited in independent Claim 7, Applicant's invention is directed to a printing apparatus having detaching/attaching means, detection means, write means, and locking state control means. The detaching/attaching means detaches or attaches an expendable unit. (The expendable unit has a memory capable of setting a locking state for inhibiting data writing with respect to at least a predetermined area in the memory.) The detection means detects a state of the expendable unit. The write means writes a result detected by the detection means to the memory, which has a setting area for inhibition/permission of writing. The locking state control means controls the locking state of the memory by setting data into the setting area, on the basis of the status of the expendable unit detected by the detection means.

Independent Claim 17 is directed to a method of controlling a printing apparatus having detaching/attaching means. That claim recites many features similar to those discussed above with respect to Claim 7.

As recited in new independent Claim 37, Applicant's invention is directed to an expendable memory unit which can be detachably attached to a printing apparatus. The

memory unit includes a first area to store and hold information that concerns the expendable unit. The memory also includes a second area to store data for determining inhibition/permission of writing with respect to the first area.

Consequently, each of the independent claims is generally direct to the combination of a printing apparatus and an expendable unit having a memory, wherein the memory has an area for storing information concerning inhibition/permission of writing in the memory.

Hillmann, et al. is directed to printing equipment in which ink reservoirs are monitored. Specifically, that patent describes an ink reservoir 11 having memory strips 17. The amount of ink remaining in the reservoir is recorded in memory strips 17. The memory strips 17 are updated by erasing bits of the memory strip in accordance with a counter that counts the number of droplets ejected from the reservoir. Applicant understands from Hillmann, et al. that the erasure of memory strips 17 is irreversible. Consequently, that system can only proceed by erasing bits of memory strips 17 that have not already been erased (see column 6, lines 25-28). Thus, Applicant understands Hillmann, et al. to describe a memory for recording an ink amount, but not any mechanism for recording the setting of inhibition/permission of writing into the memory.

Applicant notes that Applegate, et al. describes the storing of an escape hatch into a memory of an expendable unit. Whether or not an error has occurred is determined according to the escape hatch. It is Applicant's understanding, however, that the described escape hatch is merely used for determining if memory is available, and does not involve issues of write protection of the memory.

Purcell, et al. is cited in the Office Action to describe wireless communication in printer electronics. Applicant submits that this document fails to remedy the deficiencies discussed above with respect to Hillmann, et al. and Applegate, et al.

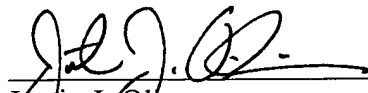
Accordingly, Applicant submits that Hillmann, et al., Applegate, et al., and Purcell, et al., when taken alone or in combination, fail to describe or suggest at least the features of setting inhibition/permission of writing with respect to data which is stored in a memory which has a data area and a setting area setting inhibition/permission of writing with respect to the data area, as recited in independent Claim 1; controlling the locking state of a memory by setting data into a setting area, on the basis of the status of the expendable unit, as generally recited in independent Claims 7 and 17; setting inhibition/permission of writing to a data area in a memory by setting, into a setting area, data for setting inhibition/permission of writing, as recited in independent Claim 11; receiving information indicating permission/inhibition of writing to a memory in units of addresses and locking writing to the memory, as recited in independent Claim 21; and a second memory area to store data for determining inhibition/permission of writing with respect to a first memory area, as recited in independent Claim 37.

The remaining claims in the present application are dependent claims which depend from the above-discussed independent claims, and thus are patentable over the applied documents for reasons noted above with respect to those independent claims. In addition, each recites features of the invention still further distinguishing it from the applied documents. Applicant requests favorable and independent consideration thereof.

For the foregoing reasons, Applicant requests withdrawal of the rejections under 35 U.S.C. §§ 102 and 103, and allowance of this case.

Applicant's undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,


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